DIRECT INTERNET 3

User Manual for the Mac OS® Operating System

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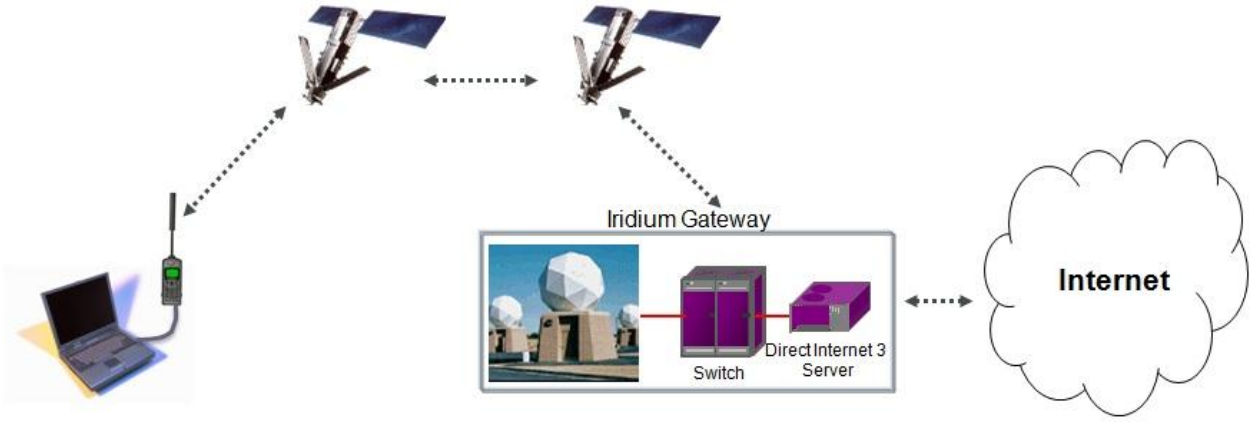
1 Overview

The Iridium Direct Internet Data Service allows you to use your Iridium satellite phone as modem to connect to the Internet via the Iridium Gateway. Direct Internet 3 has dedicated servers at the Iridium gateway that provide direct connectivity to the Internet.

Although special client software is not required to use Data Services, the Direct Internet 3 acceleration software allows you to take full advantage of new data compression and network optimization technology that improves effective data throughput. As a result, executing file transfers, browsing the Internet and exchanging emails in done more efficiently and quickly with the Direct Internet 3 as compared to previous versions of Direct Internet or no acceleration.

2 How It Works



By initiating a connection through the pre-configured dial-up connection, your Iridium phone will dial and initiate a connection with the Iridium gateway through the Iridium satellite constellation. The Iridium gateway switch will then route the call to the Direct Internet 3 server. Once connected to the Direct Internet 3 server and a session has been established, the Direct Internet 3 accelerator (if installed on your computer) will automatically detect the connection and enhance your Internet connectivity experience.

3 The Dial-Up Connection

3.1 Connect

1) Connect the computer and Iridium satellite phone or transceiver. The Iridium Extreme™ satellite phone requires a USB to mini USB cable (Iridium Part Number: USBC0901). The Iridium 9555 satellite phone requires a USB to mini USB cable (Iridium Part Number USBC0801). The Iridium 9505A satellite phone requires a standard RS-232 cable and RS-232 Data Adapter (Iridium Part Number: RDA0401). The Iridium 9522B satellite transceiver requires the 26-pin IDC connector.

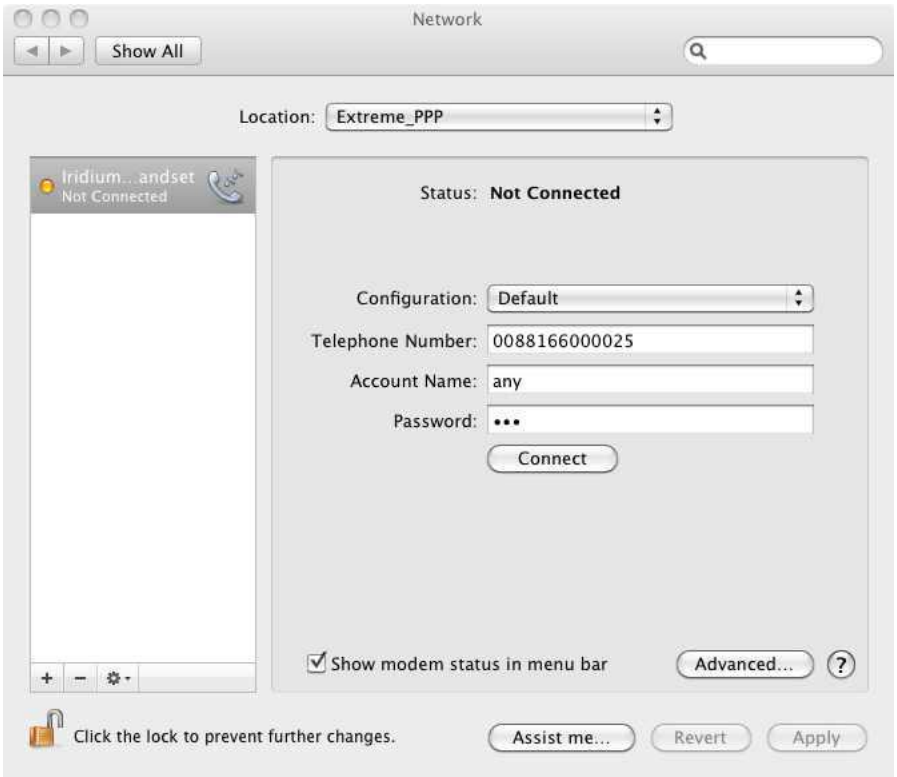
2) Position the Iridium phone or transceiver antenna with a clear view of the sky.

3) Make sure the computer is powered and completely booted up.

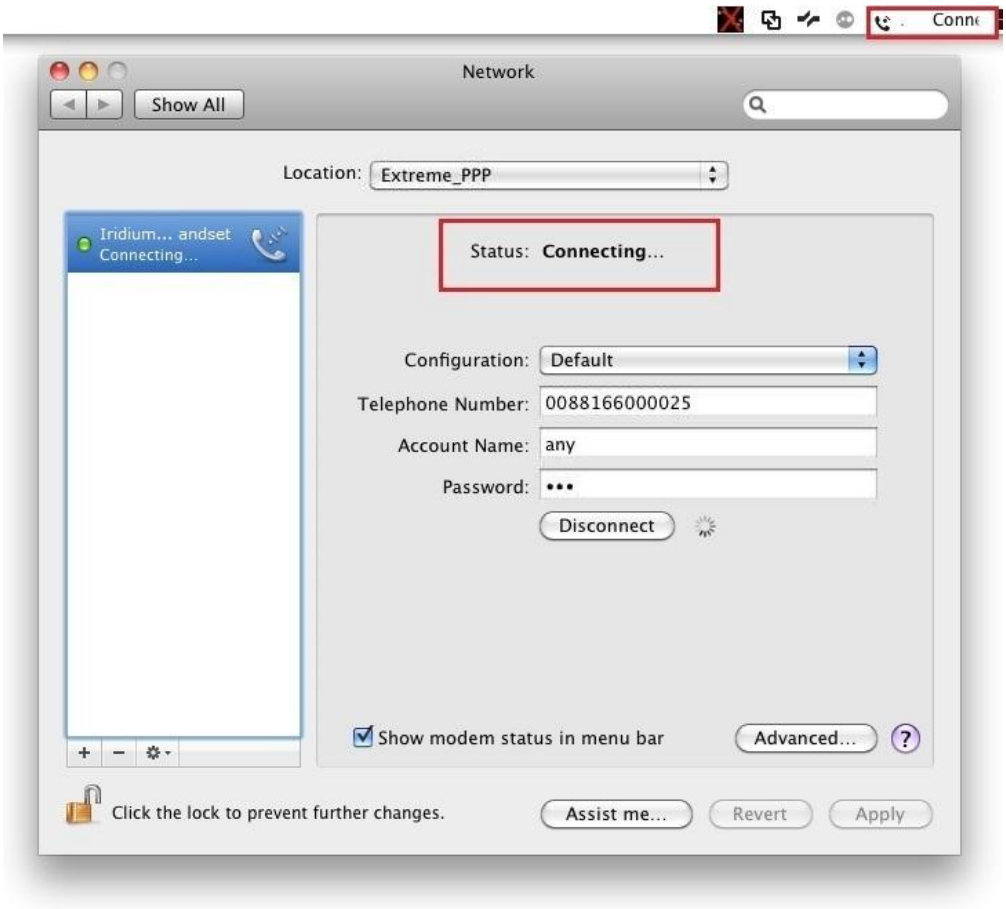
4) Connect the Iridium Extreme™ phone to the Mac via a USB port, and turn it on. The computer should display a small window stating that it has found the handset.

5) Click the **Network Preferences** button, and it opens

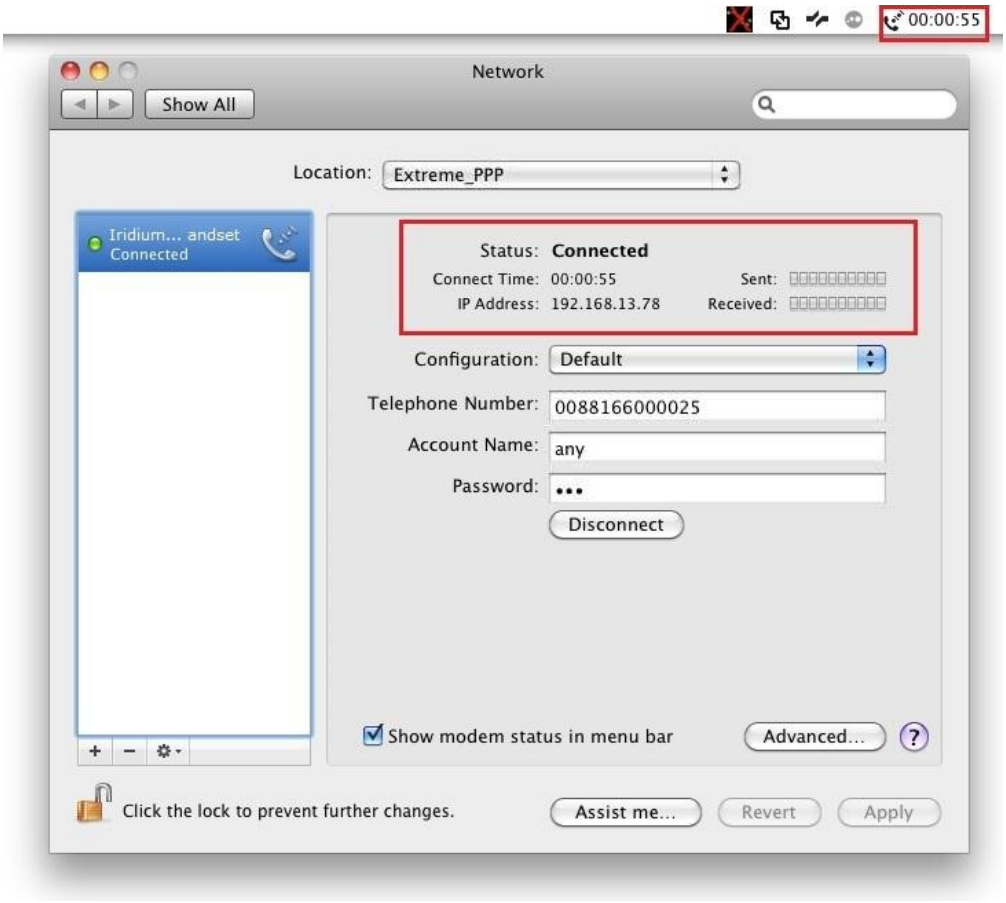
6) Select the *Iridium 9575 Handset* and create a new configuration (e.g., Extreme_PPP).



7) Wait while a connection is established.



8) Once connected, you can now launch your Internet application.



3.2 Disconnect

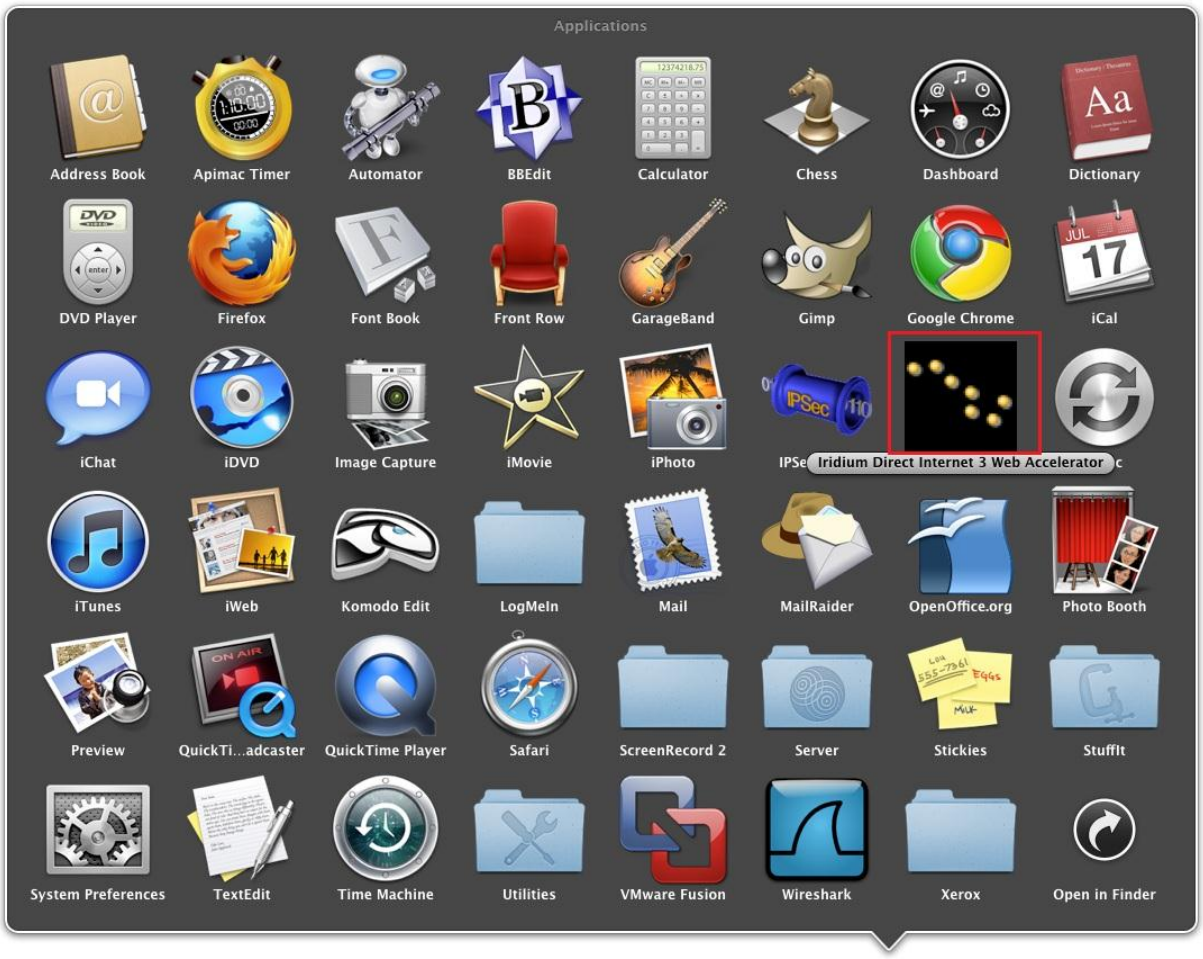
From the top bar, click on the modem icon and select **Disconnect.**

4 Direct Internet 3 Web Accelerator

4.1 Launch

The Direct Internet 3 Web Accelerator will automatically launch whenever you are connected to the Internet through the Iridium Direct Internet Data Service. It operates in the background to accelerate your Internet connection. No user intervention is required.

In the event that the Direct Internet 3 Web Accelerator needs to be launched manually, locate and click on the **Iridium Direct Internet 3 Web Accelerator** icon from the **Applications** folder.

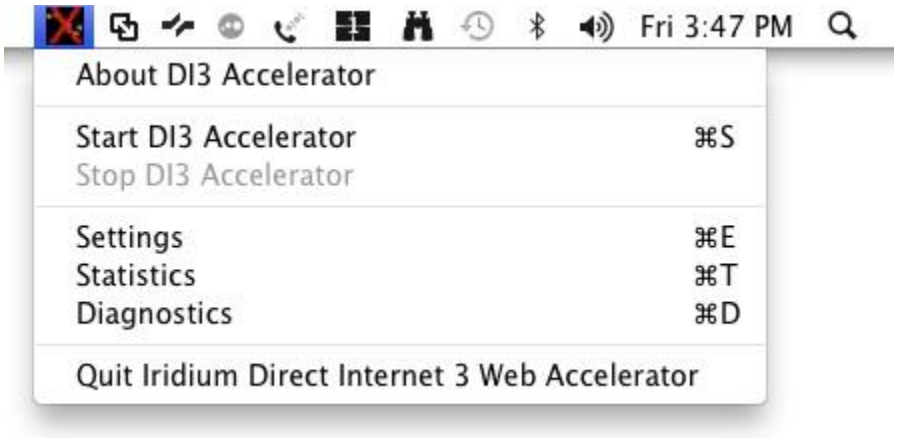


4.2 The User Interface Menu

The User Interface Menu provides options for:

- Learning About the Direct Internet 3 software version
- Starting or Stopping Acceleration
- Adjust Accelerator Settings
- Viewing Accelerator Statistics
- Accessing Accelerator Diagnostics
- Quitting Iridium Direct Internet 3 Web Accelerator.

To access the Web Accelerator User Interface Menu, click on the Iridium Direct Internet 3 Web Accelerator icon from the top bar.

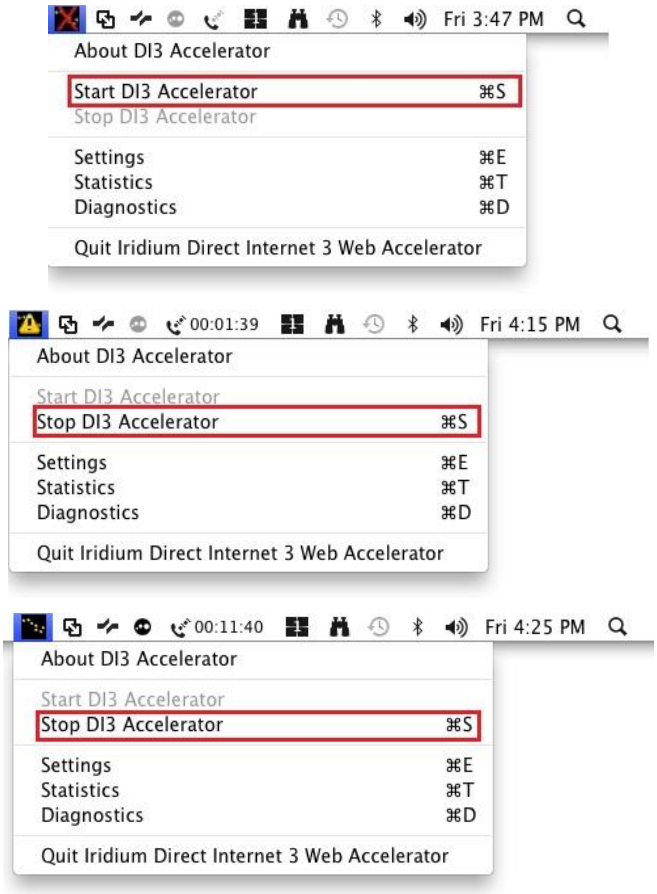


4.3 Start and Stop

The Direct Internet 3 Web Accelerator has three states:

State	Description	Icon
Disabled	Although you may still have an Internet connection, the web accelerator is NOT compressing or optimizing your Internet connection	
Connecting	The accelerator is establishing a connection with the Direct Internet 3 Web Accelerator server to begin accelerating.	
Enabled	The accelerator has established a connection with the Direct Internet 3 Web Accelerator server. The accelerator is actively compressing data and optimizing your Internet connection.	

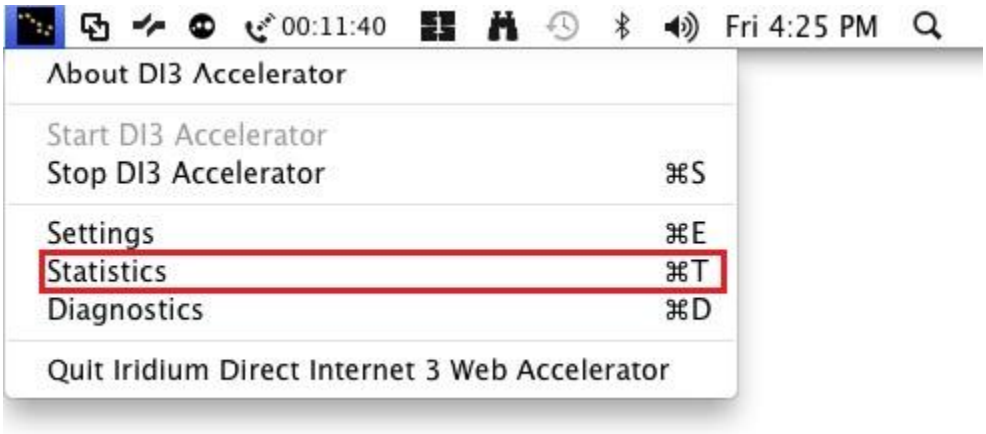
The User Interface Menu will either highlight or grey out the **Start DI3 Accelerator** and **Stop DI3 Accelerator** options depending on the current state of the accelerator.



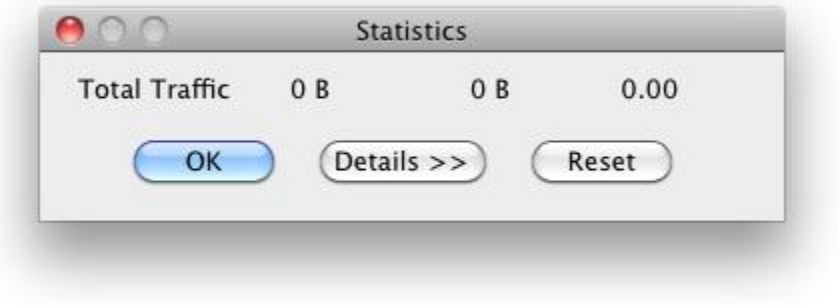
4.4 Statistics

The Direct Internet 3 Web Accelerator allows you to view acceleration statistics through the Statistics dialog box.

To open the Statistics dialog box, select the **Statistics** option from the User Interface Menu.



The Statistics dialog box will appear with three buttons:



Button	Description
OK	This button will close the Statistics dialog box.
Details >>	This button will expand the dialog box to show more detailed statistics.
Reset	This button will reset the statistics. This can be done at anytime (even while browsing) without affect the web accelerator performance or operation.

The Statistics dialog box displays three types of information on three columns:

Information	Description
Original Data	Size of the original (uncompressed) data.
Actual Data	Amount of data that been sent by the Direct Internet 3 Web Accelerator.
Savings Ratio	Factor of reduction in data. For example, a savings ratio of 4.00 means that the actual data that has been sent is ¼ the size of the original data due to compression.

The detailed view of the **Statistics** dialog box shows a breakdown of the total traffic.

Detailed Statistics	Description
Text	Statistics regarding compression of text-based content.
Graphics	Statistics regarding compression of graphical content.
Others	Statistics regarding compression of content that is neither text or graphical.
Upstream	The total amount of original and compressed data uploaded.

4.5 Settings

The Settings option in the User Interface Menu provides access to all of the Web Accelerator settings. To open the **Settings** dialog box, select **Settings** from the User Interface Menu.

The following **Settings** dialog box should appear:

What follows is a description of all the settings that can be adjusted through the **Settings** dialog box.

4.5.1 IMAGE QUALITY

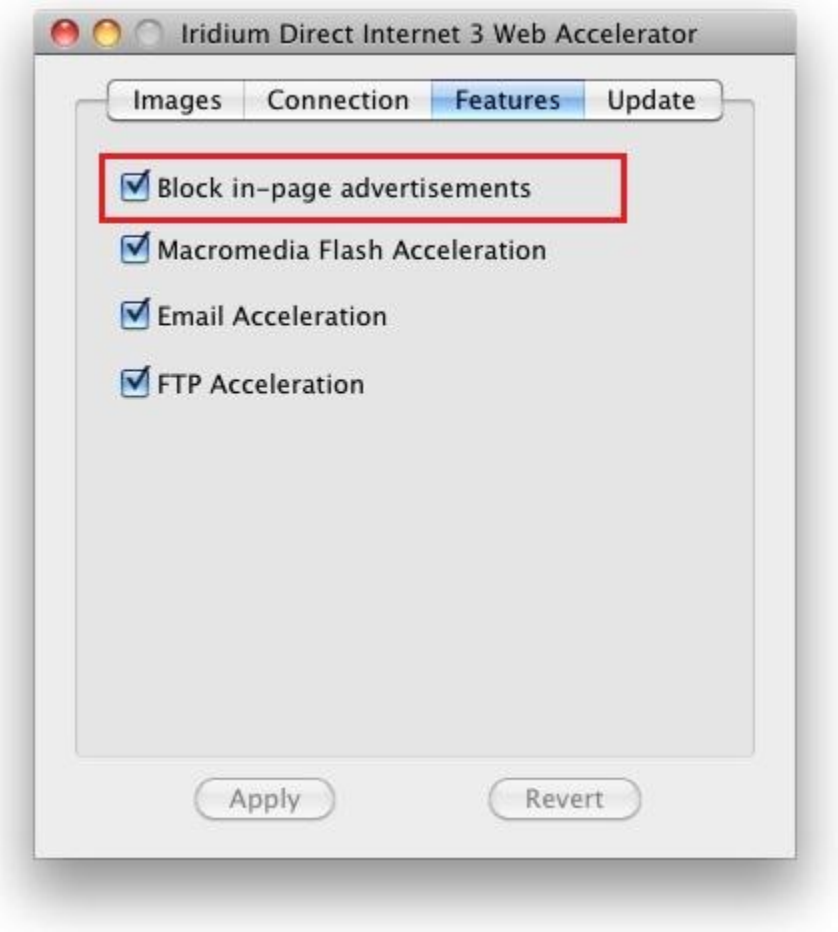
The Image Quality setting is the first tab in the **Settings** dialog box. The Image Quality setting changes the quality of images that appear in the Direct Internet 3 Web Accelerator. The higher the quality you select, the longer it will take for the image to load. For best results with the Iridium Data Service, it is recommended that you lower your image quality. This slider can be adjusted anytime while browsing.

You can easily obtain full image quality for a particular image, so don't be overly conservative about lowering your image quality setting.

4.5.2 AD-BLOCKING

The Direct Internet 3 Web Accelerator can block many graphical advertisements that appear on various web pages (i.e., ad banners). Enabling this feature will prevent these ads from being downloaded and displayed in your web browser. Thus, the Ad Blocking feature will reduce the time that it takes to download web pages.

The Ad-Blocking Feature is found in the **Features** tab of the **Settings** dialog box.



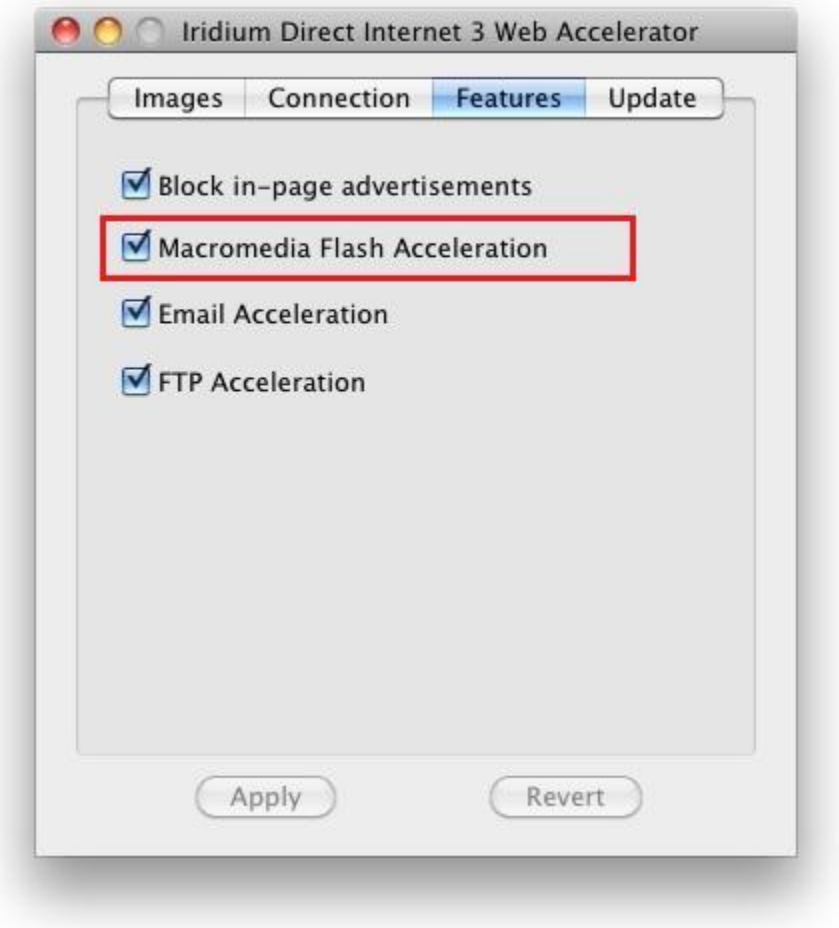
1) Check the checkbox next to **Block in-page advertisements** to enable the feature or uncheck the check box to disable the feature.

2) Press **Apply** to save the settings.

4.5.3 MACROMEDIA FLASH ACCELERATION

Direct Internet 3 Web Accelerator can accelerate Macromedia® Flash® files (now known as Adobe® Flash®). The degree of compression is based on the Image Quality setting.

The Macromedia Flash Feature is found in the **Features** tab of the **Settings** dialog box.



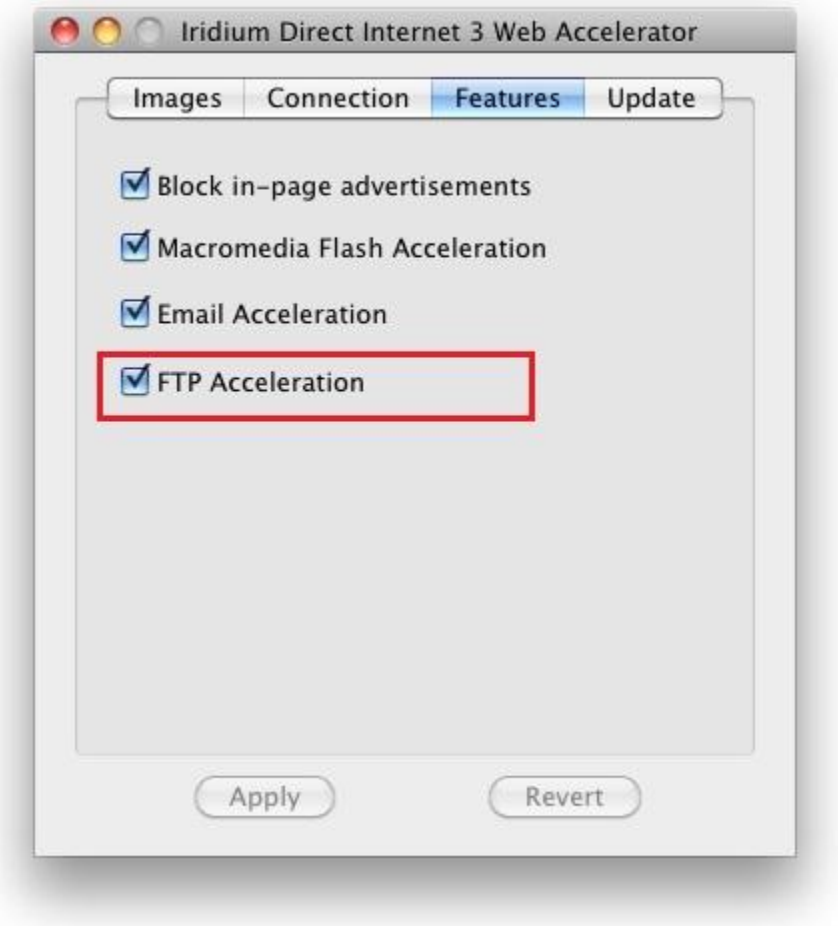
1) Check the checkbox next to **Macromedia Flash Acceleration** to enable the feature or uncheck the check box to disable the feature.

2) Press **Apply** to save the settings. The changes will take effect the next time that Direct Internet 3 Web Accelerator and your web browser are restarted.

4.5.4 FTP ACCELERATION

Direct Internet 3 Web Accelerator provides FTP acceleration. If this feature is enabled, both download and upload FTP traffic will be accelerated. FTP acceleration works with any FTP client that supports passive mode, including Internet Explorer, Cute FTP, WS_FTP and Smart FTP. Please make sure that the FTP transfer is in passive mode. This can be set in your FTP application.

The FTP Acceleration Feature is found in the **Features** tab of the **Settings** dialog box.



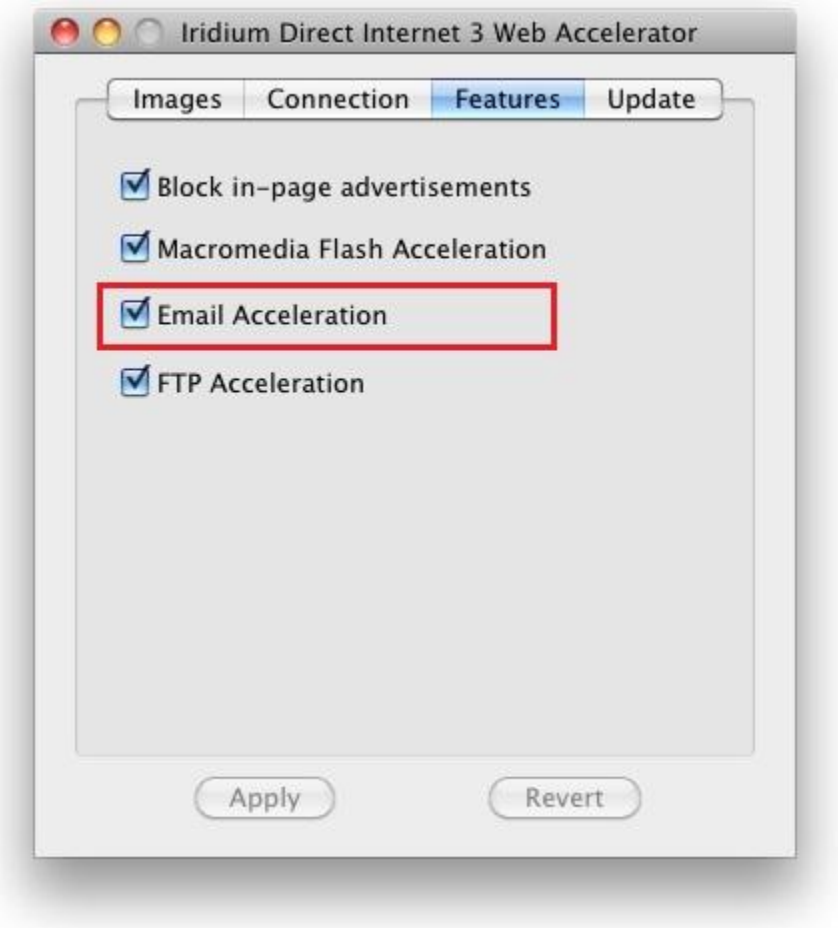
1) Check the checkbox next to **FTP Acceleration** to enable the feature or uncheck the check box to disable the feature.

2) Press **Apply** to save the settings. The changes will take effect the next time that Direct Internet 3 Web Accelerator and your web browser are restarted.

4.5.5 EMAIL ACCELERATION

Direct Internet 3 Web Accelerator can reduce the amount of time that it takes to send and receive emails. This feature works with any POP3 or IMAP email accounts. Direct Internet 3 Web Accelerator is compatible with Outlook Express, Eudora, Opera Mail, Pegasus and Netscape Mail. Since Direct Internet 3 Web Accelerator accelerates email automatically without any user intervention, you can use your mail program exactly as you normally would. However, email acceleration is disabled by default.

The Email Acceleration Feature is found in the **Features** tab of the **Settings** dialog box.



1) Check the checkbox next to **Email Acceleration** to enable the acceleration when receiving emails or uncheck the check box to disable this email acceleration.

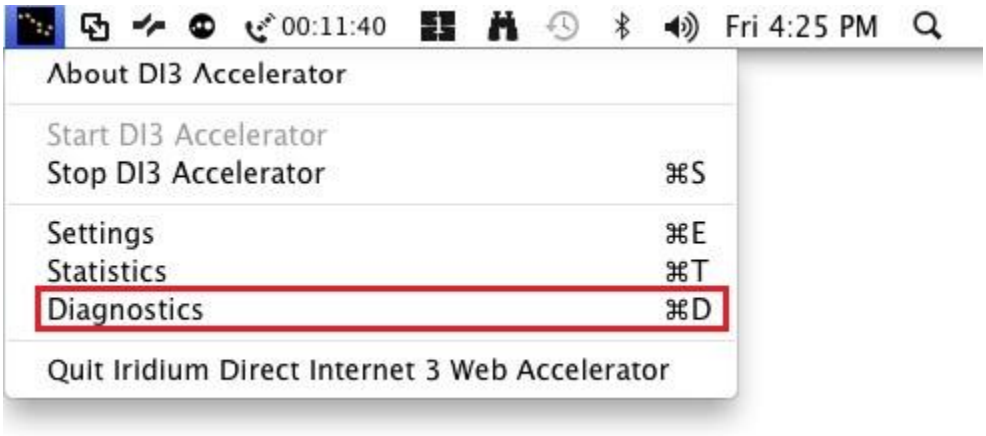
2) Press **Apply** to save the settings. The changes will take effect the next time that Direct Internet 3 Web Accelerator and your mail client are restarted.

4.6 Diagnostics

If you contact your Service Partner for technical support, the support personnel may request that you send a diagnostics report. The diagnostics report contains system information, such as your Direct Internet 3 Web Accelerator settings and connectivity, which will allow your Service Partner to provide further assistance.

To create a diagnostics report:

1) Select the **Diagnostics** option from the User Interface Menu.

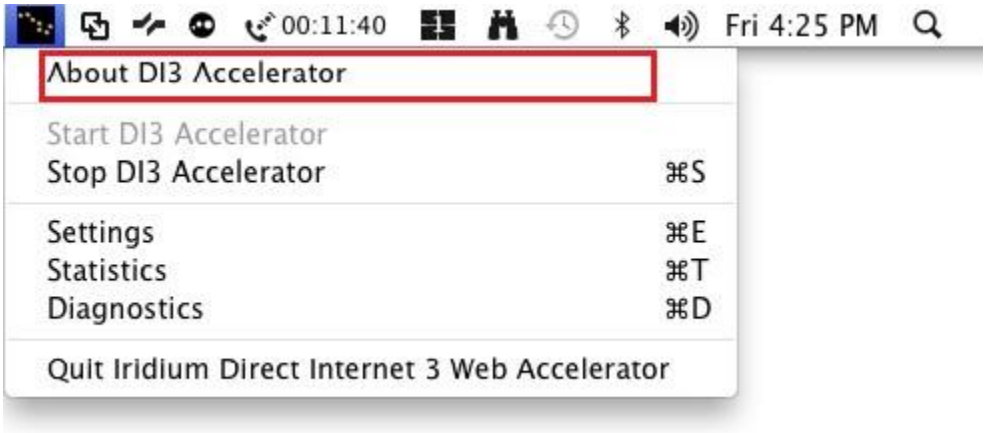


2) Click the **Start** button on the **Diagnostics** dialog box.

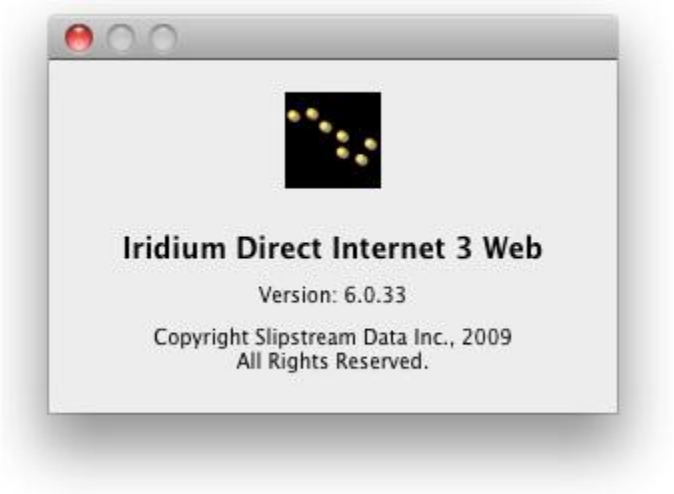
3) The contents of the report will automatically be copied to the clipboard. Launch your email application, compose an email, paste the report from the clipboard and send the email to your Service Partner.

4.7 About

The Direct Internet 3 Web Accelerator Product information is available through the **About DI3 Accelerator** option in the User Interface menu.

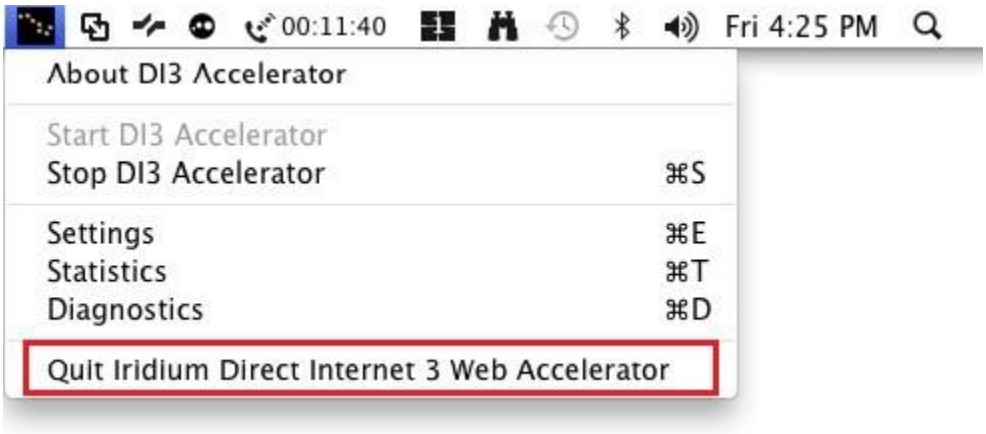


An **About** dialog box will appear with the product information.



4.8 Quit Web Accelerator

To close the Direct Internet Web Accelerator, select the **Quit Iridium Direct Internet 3 Web Accelerator** option from the User Interface Menu.



The Direct Internet 3 Web Accelerator will automatically launch again whenever the computer is rebooted.

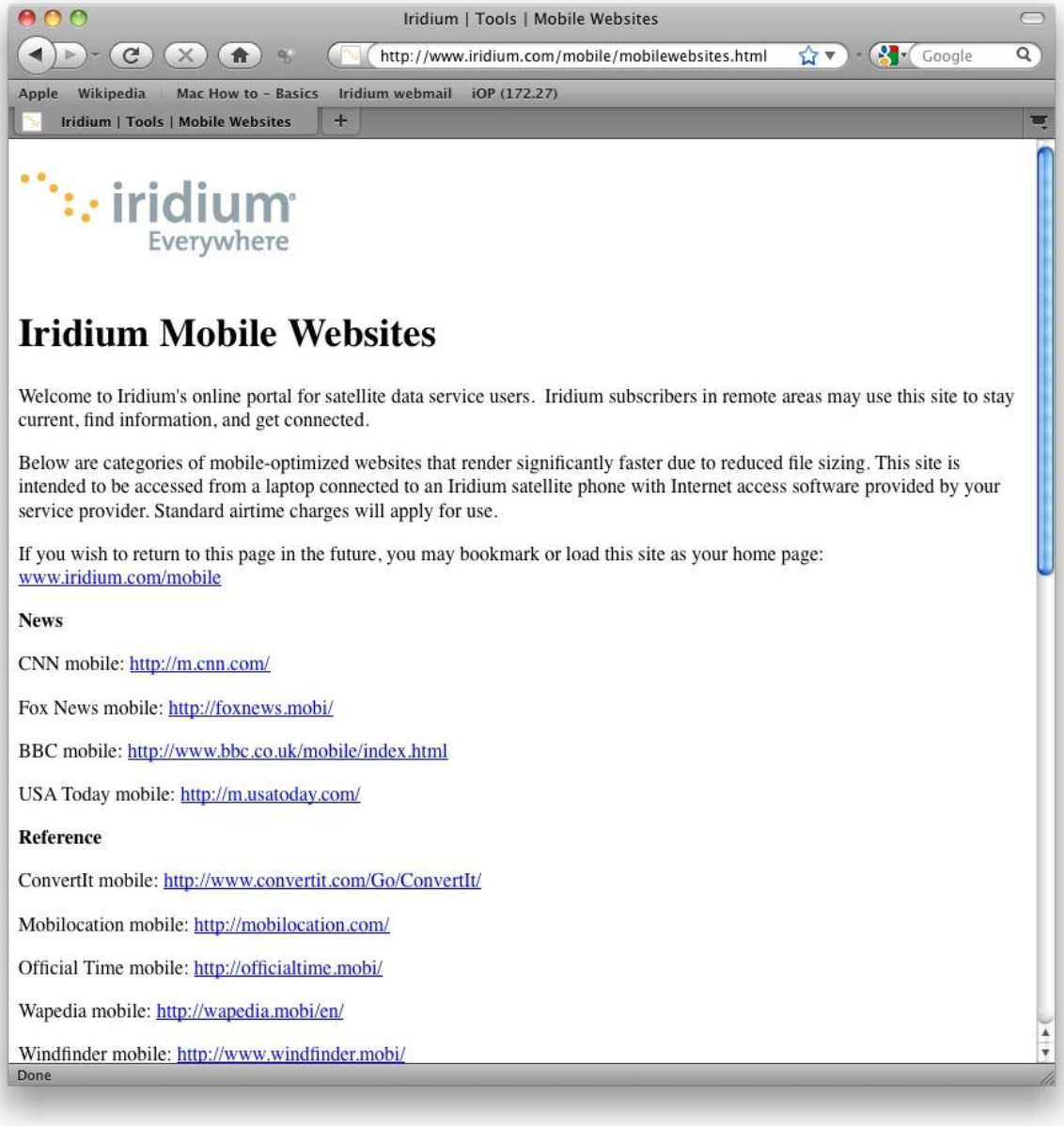
It is important to note that closing the Web Accelerator will **NOT** disconnect the call.

5 Web Browsing Tips

5.1 Mobile Websites

Whenever possible, use the mobile version of a website. Mobile websites are optimized for viewing on mobile devices. Viewing mobile websites while connected to Direct Internet 3 will significantly reduce web loading time as compared to the original website. For a list of popular mobile websites, visit the Iridium Mobile Websites page at:

http://www.iridium.com/mobile


Iridium | Tools | Mobile Websites
http://www.iridium.com/mobile/mobilewebsites.html
Google
Apple
Wikipedia
Mac How to – Basics
Iridium webmail
iOP (172.27)
Iridium | Tools | Mobile Websites
iridium
Everywhere
Iridium Mobile Websites
Welcome to Iridium's online portal for satellite data service users. Iridium subscribers in remote areas may use this site to stay current, find information, and get connected.
Below are categories of mobile-optimized websites that render significantly faster due to reduced file sizing. This site is intended to be accessed from a laptop connected to an Iridium satellite phone with Internet access software provided by your service provider. Standard airtime charges will apply for use.
If you wish to return to this page in the future, you may bookmark or load this site as your home page:
www.iridium.com/mobile
News
CNN mobile: http://m.cnn.com/
Fox News mobile: http://foxnews.mobi/
BBC mobile: http://www.bbc.co.uk/mobile/index.html
USA Today mobile: http://m.usatoday.com/
Reference
ConvertIt mobile: http://www.convertit.com/Go/ConvertIt/
Mobilocation mobile: http://mobilocation.com/
Official Time mobile: http://officialtime.mobi/
Wapedia mobile: http://wapedia.mobi/en/
Windfinder mobile: http://www.windfinder.mobi/
Done

5.2 Disconnect After Loading Web Page

To minimize airtime charges, disconnect your Direct Internet 3 dial-up connection after loading the desired web page. Re-connect your Direct Internet 3 dial-Up connection when you are ready to view a new web page.

Disabling the Direct Internet 3 Web Accelerator will **NOT** disconnect your Internet connection. See **Section 3.2** of this document to learn how to disconnect your Internet connection.

6 Emailing Tips

6.1 Client-Based Email

Avoid using web-based email software to send or receive email. In web-based email, Internet connection time is spent on:

- Loading the log in web page
- Once logged in, waiting for all your past messages and the web email interface to load on to the web page.
- Waiting for the new messages to be loaded or sent.

Client-based email software, however, will only use the Internet connection to send or receive new emails. All of your past messages as well as the email interface are already available locally from your computer.

Below are a few examples of client-based email software to use and web-based email software to avoid.

USE	AVOID
Mozilla Thunderbird®	Windows Live™ Hotmail
Eudora®	Gmail™
Outlook® / Entourage®	Other Internet Service Provider Webmail Service
Any other client-based software	

6.2 Disconnect After Sending or Receiving New Email

To minimize airtime charges, disconnect your Direct Internet 3 dial-up connection after sending or receiving new email. Re-connect your Internet connection when you are ready to send or receive new email.

Disabling the Direct Internet 3 Web Accelerator will **NOT** disconnect your Internet connection. See **Section 3.2** of this document to learn how to disconnect your Internet connection.

7 Troubleshooting

7.1 Direct Internet Dial-Up Connection

7.1.1 Network Connection Error Message

Symptom

When I try to connect to Direct Internet 3, I get an error message similar to the one shown below.

Network Connection
The communication device selected for your connection does not exist. Verify your settings and try reconnecting.
OK

Cause

This error message appears if:

- Your Iridium satellite phone or transceiver is not powered on or not plugged into a COM port
- The Iridium satellite phone and transceiver lost connection to the Iridium satellite network or was not registered on the network prior to the call.
- The Direct Internet 3 telephone number was mistakenly changed.

Action

First, make sure your Iridium satellite phone and transceiver is powered on and there is a good physical connection between your phone and transceiver and computer.

Second, verify that the Iridium satellite phone and transceiver registers with the Iridium satellite network before redialling.

Finally, verify that the correct telephone number is dialled. (**008816000025**)

7.2 Web Browsing

7.2.1 Accelerator Disabled

Symptom

Direct Internet 3 Web Accelerator is disabled after it launches.

Cause

Direct Internet 3 Web Accelerator only works when you are connected to the Internet via the Iridium Direct Internet Service.

Action

Make sure you are not connected to another network such as LAN or wireless. Also, make sure you have a Direct Internet 3 dial-up connection.

7.2.2 Cannot Access the Original Image

Symptom

I cannot right-click on an image to get the “Show Original Image” option.

Cause

Some web sites disable the ability to right-click using JavaScript. On other sites, the image in question may be a background image.

Action

To view the full quality image under these conditions, change the Image Setting to “Full Quality” and press Ctrl-Refresh in your Web Browser. Please not that the browser must be launched after Direct Internet 3 Web Accelerator is started in order to have “Show Original Image” as a menu option.

7.2.3 SOME WEB PAGES ARE SLOWER TO LOAD THAN OTHERS

Symptom

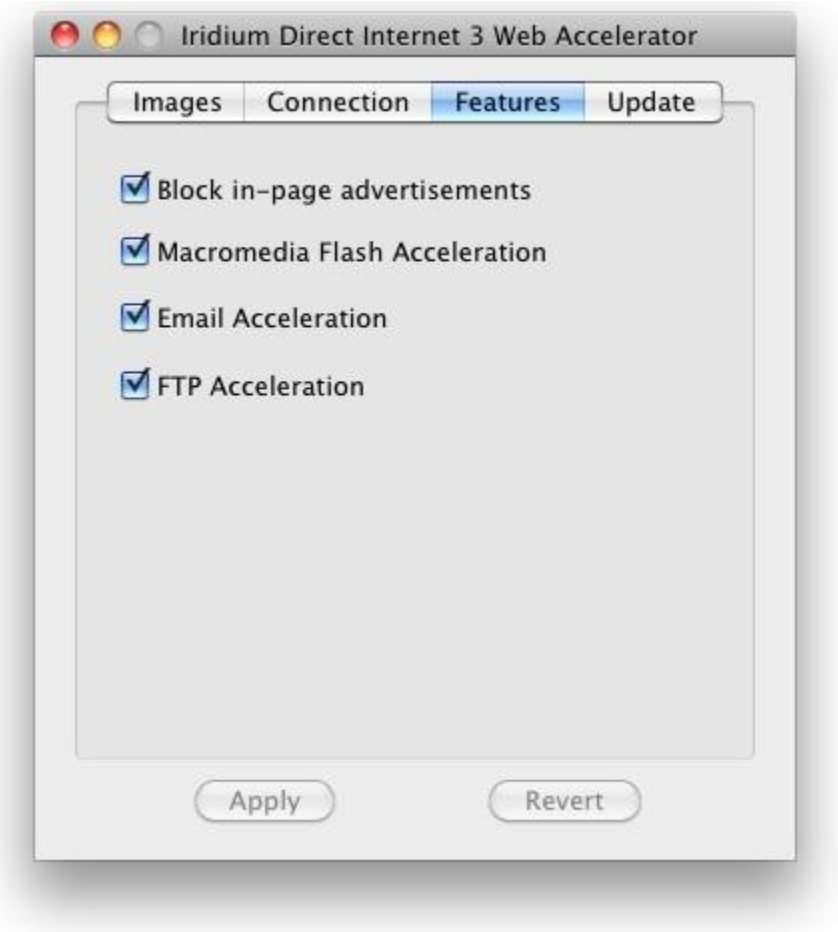
Some web pages are slower to load than others.

Cause

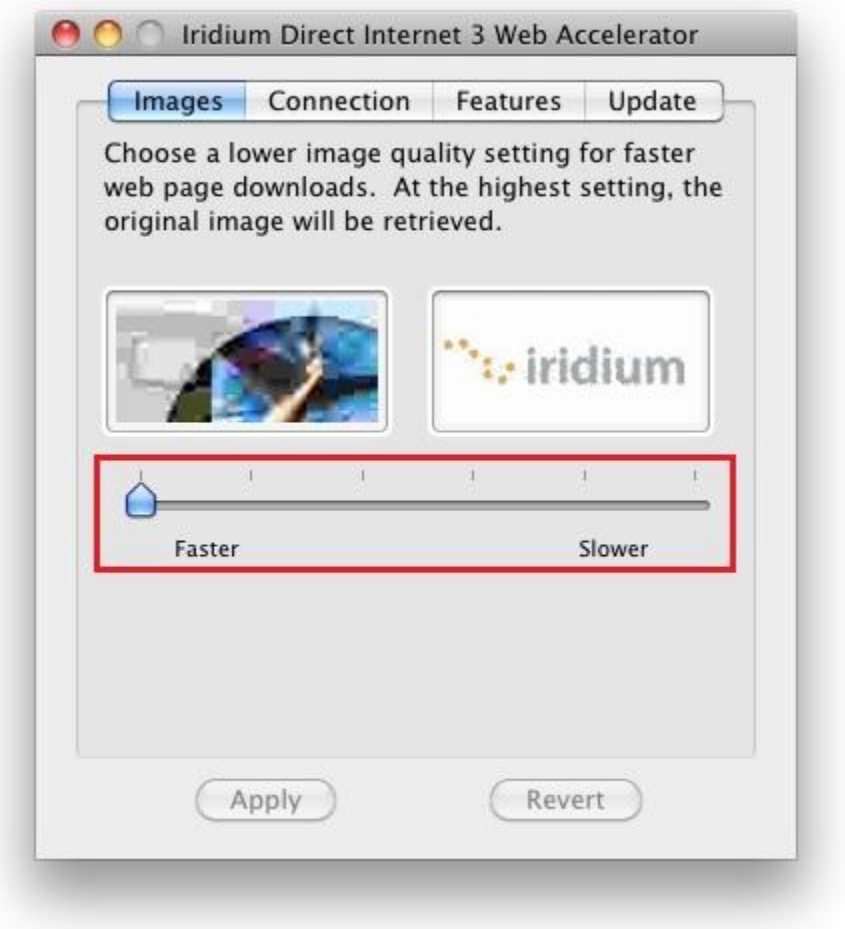
This may be due to a difference in content (types, sizes, quantity) between web pages. Or, some web sites may have been select to bypass the Direct Internet 3 Web Accelerator.

Action

To optimize performance, make sure that the Macromedia Flash acceleration and Ad-blocking feature are enabled in the Web Accelerator Settings.



Consider adjusting the Image Quality setting to a lower image quality in the Web Accelerator settings.



Finally, consider using mobile websites whenever possible. The Iridium Mobile Websites page (http://www.iridium.com/mobile) has a list of popular mobile websites.

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